CALIFORNIA'S HEALTH

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ABSENTEEISM AND HEALTH

By HAROLD T. CASTBERG, M. D.

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In the local and national press, absenteeism in war industries has recently received a great deal of publicity. The main emphasis has been placed on unexcused absences. Lost time from absences in a west coast group of war industries has averaged around 10 per cent. Some individual plants have had absenteeism rates as high as 15 to 20 per cent and others have been able to maintain rates as low as 3 to 4 per cent. It has been estimated that during the three-month period, November 1, 1942, to February 1, 1943, 13 more liberty ships could have been built at the Kaiser shipyards in one area with the manpower lost through absenteeism.

The figures given are for absences from all causes. Few, if any, of the plants have made analyses of the records to demonstrate the part which sickness is contributing in building up this impressive backlog of lost time. Under well-controlled normal conditions, absenteeism from sickness has been found to average around 2 to 3 per cent. However, under conditions now prevailing in the mushroomed war industries of the nation, the average is undoubtedly higher. Innumerable reasons may be given for the higher rate prevailing in emergency war plants:

1. Employment of older and less able-bodied workers.
2. Employment of women. It has been the experience of industry that absenteeism rates for women are ordinarily twice that prevailing for men.
3. Placement of workers on jobs without adequate attention being given to the physical capacities of the individual workers.
4. No knowledge of physical impairments, because of lack of physical examinations.
5. Employment of "green" workers, causing an increase in the number of on-the-job accidents.
6. Inadequate control and follow-up of individual workers absent because of illness.

The point has been raised that some of the conditions indicated by the foregoing summary can not be corrected until the master agreement between the workers and the employers in Portland's war industries is altered so as to permit physical examinations of workers. Under existing contracts such examinations may not be given, except on a purely voluntary basis. The occupational disease law passed by the Oregon Legislature would seem to override this provision, since it expressly stipulates that "as a prerequisite to employment in any case a prospective employer shall have the right, by written direction, to require any applicant for such employment to submit to a physical examination by a doctor or doctors to be designated by the state industrial accident commission, and paid by such prospective employer."

However, this provision in the new law is obviously not the whole solution to the problem. The employer is not compelled to require physical examinations, and he is not likely to jeopardize his relations with labor by requiring physical examinations in the face of widespread opposition. It must first be impressed on the worker that the physical examination is not required to ascertain whether or not he may be employed at all. Rather, it is required to enable the employer to assign the individual worker to tasks which he is physically

able to perform. In short, this entails a fundamental revision of the popular conception of why the physical examination is desirable.

Another phase of the problem which would seem to emphasize the desirability (from the worker's standpoint) of physical examinations is the fact that, in surveys conducted in long-established industrial plants prior to the coming of the war emergency, it was learned that only 15 per cent of all the workers employed accounted for from 60 to 70 per cent of all absenteeism because of illness. With the overnight creation of emergency industries and with demand for workers running so far ahead of supply, it is inevitable that the proportion of workers constitutionally subject to illness is currently increasing. This trend is being heightened by the manpower demand of the armed forces, which induct the most physically fit men available. The gaps left in individual ranks by selective service inductions must be filled by women and by men with less resistance to disease.

Obviously, then it becomes increasingly necessary to assign men to jobs which they are physically capable of performing and it thus behooves the individual worker to ask for a physical examination. Again, one perceives the urgent need for a drastic revision in the popular concept of the reason-to-be for the preemployment physical examination. Perhaps the term "preemployment" should be entirely discarded in connection with the examination, and the term "preplacement" substituted.

Recently a voluntary committee was formed in Portland, Oregon, composed of representatives of management, labor, federal agencies, and the public, to investigate the absenteeism problem. A number of recommendations have been made by this committee to eliminate, as far as possible, the various factors in the community which contribute to the problem. Thus, it has been recommended that certain stores, banks, barber shops and other services extend their hours so the workmen may attend to personal affairs on their own time. Recommendations have been made concerning staggering of hours to aid in relieving transportation difficulties. Further recommendations have been made concerning the problems within the plants which might have a bearing on absenteeism, such as selection and training of leadmen and foremen, disciplinary action for unexcused absences, and awards for good attendance.

Sickness and health received considerable attention and the following recommendations were made:

In general, to extend medical and nursing services in industry to include not only emergency first aid, but also a preventive medical and health preservation program.

1. A closer check on absenteeism due to sickness and injury through institution of adequate sickness absenteeism recording and analyses, to reduce preventable lost time from sickness to the minimum. Whenever an employee leaves work because of illness or returns after an absence due to illness or injury, he should check through the medical depot for advice on treatment, or to determine his ability to return to work.

2. Modification of the labor union's master contract to permit and require preplacement and periodic physical examinations among workers in war industries in order to place workmen on jobs which they can perform physically.

3. Whenever possible, cafeterias or canteens should be provided in connection with industrial establishments, to maintain the nutritional status of the worker. Where this is impossible, separate lunch rooms should be provided. No workers should be permitted to eat lunch at their place of work or in the workroom.

4. Each industrial establishment is urged to utilize the educational and consultative services of the official and non-official agencies which are maintained for the promotion of public health and reduction of occupational general illness.

5. The general plant environment, including sanitary facilities, should be maintained to conform with U. S. Department of Labor, Division of Labor Statistics Special Bulletin No. 3, "Protective Plant Manpower."—Reprinted from OREGON HEALTH BULLETIN.

SWIMMING POOL SANITATION

Though the exact manner of spread of poliomyelitis remains unknown, the interest of the public is always focused on swimming during an outbreak of the disease and some people question the advisability of continuing this sport at such a time. It is, therefore, imperative that those engaged in the operation of swimming pools be guided by the advice of the health officer and that pools remaining open maintain a high standard of sanitation.

1. All swimmers, and children in particular, shall be instructed to avoid diving and under water swimming as much as possible and to try to swim with nose and mouth above water.

2. Blowing out of the nostrils, and spitting in pool or on sidewalks, and "bellowing" of swimmers, shall be prohibited as much as possible.

3. Encourage and require shower baths before entering pool.

4. SCUM GUTTERS. Maintain a high water level so that scum gutters overflow the floating scum and sputum continuously to the sewer. Keep gutters clean and keep sputum and scum off of water as much as

possible. If gutter drains are inadequate, install more drains. Disinfect scum gutters with a solution (see 5).

5. CLEANING OF FLOORS AND WALKS. Wash down floors and walks two or three times daily, and sprinkle a chlorine solution over floors at least twice daily. For a solution, use four ounces of any chlorine chemical in five gallons of water.

6. SUITS AND TOWELS. Thoroughly wash and rinse suits and towels and dry thoroughly in the sun wherever possible before being reused.

7. EXCLUDING SICK PERSONS. Keep out persons having symptoms of colds or inflamed eyes or indications of fever. Do not allow children or others to remain in water so long that they become chilled or fatigued.

8. CHANGING WATER. Increase frequency of changing water wherever feasible, and especially following days of heavy patronage. For example, in the case of fill and draw pools, change water daily on week ends and holiday periods and every other day during the week. Pools equipped with complete disinfection, filters, and circulating pumps should also increase the frequency of changing the water as fully as is possible in each case.

9. CHLORINATION. It is not certain that chlorine is effective in killing the virus of this disease. However, keep chlorine in the swimming pool all day long but be careful to avoid using an amount which will result in stinging of eyes, nose or throat. Maintain the free chlorine at not less than 0.2 part per million in order to get disinfection. If the customary 0.5 part per million for maximum value causes any stinging of the eyes, cut down the upper limit while this epidemic is on. Make tests for chlorine in the pool three or four times per day at five or six points around the pool, to be sure you are chlorinating correctly, and keep a record of each test. *For test purposes use orthotolidine solution.*

Stock up with chlorine chemicals so as not to get caught short. Get yourself an orthotolidine test outfit and at least a pint of orthotolidine solution. If not familiar with sources of these supplies, consult your druggist, or firms listed in the business guide of the telephone directories of the larger cities, under the headings "Chemical Business," and "Chlorination."

NEW HEALTH OFFICERS

Dr. Stanley E. Coffey was recently appointed Health Officer of the City of Orland, succeeding Dr. Thomas H. Brown; Dr. Zerah P. King was appointed Health Officer of the City of Sanger, succeeding Dr. Benjamin H. Viau; Jacob K. Gibbel succeeds Dr. Edward F. Carlson as City Health Officer of Fort Jones; Dr. Carl W. Clark was appointed Health Officer of the City of Belvedere, succeeding Dr. David C. Cleave; Dr. John L. Vaught was appointed Health Officer of the City of Dos Palos, succeeding Dr. Paul A. Lum.

DRUGLESS PRACTITIONERS MAY SIGN DEATH CERTIFICATES

Following is an opinion of the Attorney General relative to the signing of death certificates by drugless practitioners:

Board of Medical Examiners,
1020 N Street, Sacramento, California.
Attention: Frederick N. Scatena, M.D.
Secretary-Treasurer

Gentlemen: I have before me your letter of recent date in which you ask the opinion of this office relative to the legality of a drugless practitioner signing a death certificate in this State.

Section 10375 of the Health and Safety Code provides for the contents of a certificate of death, and in subdivision 24 of this section it is provided that the certificate shall contain the "Signature and address of attending physician or the signature of the coroner, with the statement of the county of which he is an officer."

In Section 10400 *et seq.* of the same code are to be found references to "the physician" or "attending physician" with reference to the execution of the medical certificate which is a part of the death certificate.

We are confronted, therefore, with interpreting the meaning of the term "physician" as it is used with reference to the signing and filing of death certificates.

In the case of *In re Rust*, 181 Cal. 73, the petitioner therein who held a license to practice osteopathy was found guilty of the practice of optometry without a license from the State Board of Optometry. The defendant contended that his osteopathic license constituted him a "physician" and as such under the Optometry Act he was entitled to practice optometry by reason of the exception contained therein. The Court therein held that the osteopath in such case could not be classified as a "physician" and therefore the practice of optometry was in such case declared illegal.

It should be observed that in the Rust case the matter under consideration was that of a particular type of practice in which the licentiate there involved was engaging, and I do not believe the case controlling of the instant problem.

This office previously has rendered an opinion relative to the authority of a drugless practitioner to issue a premarital certificate as required by Section 79.01 of the Civil Code. This section requires that, as a condition precedent to the issuance of a marriage license, each applicant must file with the person authorized to issue the license, a certificate from a "duly licensed physician" which certificate shall state that the applicant has been given an examination, including a standard serological test for the purpose of ascertaining whether or not syphilis is present and in which certificate he must further give his opinion, if the syphilis is present, if it is in such a stage as to be communicable to the marital partner. In that opinion, number NS3003,

rendered October 17, 1940, to Dr. Bertram P. Brown, Director of Public Health of this State, it was held by this office that a drugless practitioner was not authorized to issue such certificate.

Again it will be noted that that opinion gave consideration to a specific type of practice in which the licentiate engaged, and for this reason I do not believe the opinion pertinent to the problem here involved.

A drugless practitioner receives his license from the Board of Medical Examiners in this State. By law, the mode of treatment of human diseases, injuries and deformities, etc., employed by drugless practitioners, is recognized. Thus, by Section 2138 of the Business and Professions Code, a drugless practitioner is authorized "to treat diseases, injuries, deformities or other physical or mental conditions without the use of drugs or what are known as medical preparations, and without in any manner serving or penetrating the tissues of human beings, except the severing of the umbilical cord."

In so authorizing this type of treatment, there is a tacit recognition of the fact that certain physical conditions can be treated and cured by the employment of the mode of treatment used by drugless practitioners. In view of such recognition, we must conclude that certain persons suffering from injuries, diseases or deformities will seek the curative powers of holders of drugless practitioners certificates. In the event that death ensues as a result of conditions existing, despite the treatment of a drugless practitioner, it is difficult for me to believe that the drugless practitioner in attendance to such patient should not be qualified to execute and file the certificate of death as well as the medical certificate.

In the absence of direct interpretation by the courts of this State, it will be interesting to observe the attitude of courts in other jurisdictions. Thus in the case of *People ex rel Gage* v. *Siman*, 278 Ill. 256, and 115 N. E., 817, the question arose whether or not an osteopath, authorized by law to treat human ailments without the use of medicine and without performing surgical operations, was a legally qualified physician and, as such, entitled to registration under the Vital Statistics Law to provide for the registration of all births, stillbirths and deaths in the State of Illinois. The Court said:

> "Though the osteopathic physician does not use medicine or perform surgical operations, he does treat and operate on patients for physical ailments, and but for his certificate from the State Board of Health would be liable for the penalty prescribed for practicing without a license. A physician is one versed in or practicing the art of medicine and the term is not limited to the disciples of any particular school. The term 'medicine' is not limited to substances supposed to possess curative or remedial properties, but has also the meaning of the healing act, the science of preserving health and treating disease for the purpose of cure—whether such treatment involves the use of medical substances or not. In common acceptation, anyone whose occupation is the treatment of diseases for the purpose of curing them is a physician, and this is the sense in which the term is used in the Medical Practice Act."

The Court, in that case, held that a registered practitioner of osteopathy was a physician within the meaning of the Vital Statistics Law thereunder consideration. The Court further pointed out that a provision of the Medical Practice Act declaring that only those who were authorized to practice medicine and surgery in all their branches could call or advertise themselves as physicians or doctors, did not sustain the position that only persons licensed to practice medicine and surgery in all their branches were authorized to issue certificates of death, upon the ground that such provision did not declare that persons treating physical ailments without the use of medicine and without performing surgical operations, were not physicians, but only that they should not call themselves physicians or advertise themselves as such.

In Volume 41, American Jurisprudence, page 133, section 2, will be found this language:

> "The word 'physician' in its narrower sense means one who is proficient in the art of healing by means of the application of physics or medicine to the patient. In its broader sense it means anyone who practices the art of healing disease and preserving health, a prescriber of remedies for sickness and disease."

In the case of *State* v. *Borah*, (Ariz.) 76 Pac. (2d) 757, the following language will be found:

> "In the same way, the word 'physician' when used in a like manner, is generally accepted as meaning 'a person skilled in the art of healing'."

For the reasons hereinabove stated, therefore, it is my opinion that a drugless practitioner is authorized to sign death certificates.

You are advised, however, that this opinion should not be construed as authorization for a drugless practitioner to hold himself out or advertise himself as a physician, or as practicing "medicine."

Yours very truly,

ROBERT W. KENNEY, Attorney General,
By ALLEN L. MARTIN, Deputy.

FEDERATION OF LABOR ENDORSES BLOOD TESTING

The following resolution was passed by the executive board of the California State Federation of Labor at its meeting held in Hollywood, June 12, 1943:

WHEREAS, Scientific investigations have shown that approximately one million persons in the United States contract syphilis each year and that, although a blood test will reveal the presence of the disease, half of the people who have syphilis do not know they are infected; and,

WHEREAS, The net result of the majority of cases of undiscovered and untreated syphilis is insanity, blindness, heart disease, loss of hearing, paralysis or shortening of the span of life; and

WHEREAS, Modern treatment quickly makes a patient incapable of transmitting his disease to others and continued competent treatment can cure most cases of syphilis or, at the very least, can arrest further destructive progress of the disease; and,

WHEREAS, Undiscovered, untreated or inadequately treated syphilis strikes at the security of the individual by destroying his ability to earn a livelihood, endangers his fellow workers and is a drag upon the successful prosecution of the war as a cause of absenteeism, lost wages, decreased production, illness and accident; and,

WHEREAS, It is the duty of every citizen to assist to the best of his ability the campaign to stamp out syphilis now being conducted by the United States Public Health Service, state and local public health departments; and,

WHEREAS, Experience in California and particularly in San Francisco has demonstrated that labor unions can materially assist the public health campaign to control syphilis by conducting educational programs among their members and in sponsoring the blood testing of union men and women; now, therefore, be it

Resolved, That the Executive Board of the California State Federation of Labor in regular session in Hollywood on June 12, 1943, does hereby recommend to its affiliates that member unions require each applicant for membership to have a blood test made before admission into the union, the result of such test to be a matter of strictest confidence between the examining physician and the applicant and under no circumstances to be revealed to the union or to the employer and to have no bearing upon the applicant's admission into the union; and, be it further

Resolved, That the Executive Board bring to the attention of affiliated unions the fact that local public health departments are prepared to give blood tests without charge to the individual or to the union, and that the Board recommends that unions make arrangements with local public health departments to make tests for such applicants as do not wish to go to a physician in private practice; and, be it also further

Resolved, That as a corollary to a program of blood testing applicants for union membership, the assistance of the California State Department of Public Health, local public health departments and the California Social Hygiene Association be secured in conducting an educational program among the entire union membership.

THE TUBERCULOSIS SITUATION TODAY

In 1916, Dr. H. W. Hill, then Director of the Division of Epidemiology of the Minnesota State Board of Health, published the first edition of "The New Public Health." Later, he became the Medical Officer of Health of London, Canada, and Professor of Public Health at Western Ontario University. For many years, he has been Professor of Public Health and Preventive Medicine at the University of British Columbia, Vancouver. In "The New Public Health," published 25 years ago, Dr. Hill said:

"How can we abolish human tuberculosis? Exactly as we can, and some day shall, abolish any and all other infectious diseases, by killing off the germ that causes it; exactly as we have almost abolished the race of buffalo by killing off the existing buffalo. We know well enough that when the last buffalo is dead, no man, however wise, no government, however powerful, could ever produce another buffalo. So, once the existing diphtheria and tuberculosis germs are all dead, there is no way under heaven by which these particular germs could be produced again. Those which exist now are not 'evolved from dirt' any more than are buffalo or roses. Those which are living today are simply the descendants of those which existed yesterday and so on, just as in the case of buffalo or roses, back to the dawn of history.

"In brief, the method, and, I believe, the only rapid, complete, effectual method of abolishing human tuberculosis is this: Find the open cases and prevent the spread from them of the germs they alone throw out in numbers and conditions to be feared. That means, find the one person in every five hundred whose infection threatens all the rest, and supervise him just enough to keep his discharges from entering other people's mouths.

"How is this one person in every five hundred to be found? Not without hunting, not without ingenious, skillful, deliberate, sagacious, well-trained hunters, epidemiologists as devoted and persistent in their work as the average insurance agent is in his—men who devote themselves to the adolition of tuberculosis as whole-heartedly as any merchant does to making money."

At the time this was written, the tuberculosis death rate for California was 173 per hundred thousand population. In 1942, the California tuberculosis death rate was 46.2 per hundred thousand population. This decrease, of course, is common throughout the United States.

SEGREGATION ESSENTIAL IN CONTROL

In 1941, Dr. Hill, in a paper entitled, "The Epidemiology of Human Bacillus Tuberculosis," says: "This fall in deaths occurred fairly steadily, irrespective broadly of World War I and its post-war upsets; of the influenza pandemic; of prohibition and of its repeal; of the boom times of the later twenties; of the depres-

sion of the thirties; of continuously widening social contacts re automobiles and so forth. Evidently some over-ridingly powerful factor operated specifically upon tuberculosis, (a) amongst North American whites, over great areas; (b) for the first time in North American white history; (c) growing in effect during the quarter-century; (d) in the face of widely fluctuating sociological conditions. Other than segregation of infectives, what adequate factor presents all these features? Does not segregation, such as we have had, present them?

"The following considerations indicate that even a partial segregation could have had the effect required. Thus, every existing case, whether existing as an invasion case or as a repeat case, was infected by a preceding infective person; hence, in general, by a preceding case, invasion or repeat.

"Therefore, broadly taken, every case traces back, by infection-descent, to a preceding or parent-case; which latter likewise traces back to its parent-case and so on. Each new case, at its onset, being the then end-link of an infection-chain which ultimately traces back to the original hypothetical 'Adam' case, which eons earlier, supplied the first infector; thus setting up the first case-chain."

CASE FINDING IS IMPORTANT

This clear exposition of the epidemiology of tuberculosis leaves no room for argument. The epidemiology of this disease constitutes one of the chief functions of all official public health agencies. There must be no breakdown in the machinery devoted to case-finding and to the provision of segregation, medical care and treatment. The official program in tuberculosis control changes little. New methods are tried, some discarded, and some retained, but in the end standard routine methods in case-finding and treatment continue unchanged and they certainly are productive of results.

There is every reason to believe Dr. Hill's contention that segregation of open cases has been the most important single factor in reducing tuberculosis mortality. This means that the official program in tuberculosis control is clear-cut, a program of epidemiology, segregation, medical care and treatment. Broadly speaking, every other activity in the control of tuberculosis is unofficial, lying within the province of local and State tuberculosis societies. Only the trained epidemiologist can conduct an efficient case-finding program. He is the one individual who is trained and skilled to carry out this activity. Assisted by public health nurses, who help in the discovery and control of contacts, this program has been pursued successfully over a long period of years.

LOCAL UNOFFICIAL AGENCIES HELP

The activities of local tuberculosis associations are too well known for recounting. Perhaps their activities in general health education have done more to encourage the individual to build up his individual resistance against all communicable diseases than any other single factor in public health. As a matter of fact, the tuberculosis associations had their rise almost simultaneously, if not before the origin of modern public health administration. From their beginning in California in 1902, local tuberculosis associations have provided indispensable services corollary to those of local health departments. Their support of official activities and their contributions, both direct and indirect, have played important roles in the conquest over tuberculosis. Through the influenza epidemic of World War I, the depression of the early thirties and now in World War II, we find all public health organizations anxious and willing to perform any activities that may be indicated for the control of this infectious disease.

The activities that are most clearly indicated are shown in the early results of the world conflict in which we are engaged, in the selective draft. This field will be enlarged tremendously during the next few years, but even today the field of activity to be covered by official organizations is almost beyond the imagination, because of its tremendous scope.

Local health officers are only beginning to encounter the problems that will sooner or later engulf them. Today many thousands of industrial workers have flocked into California from all parts of the United States—men, women and children, they are crowded together in dilapidated old dwelling houses in the overcrowded sections of our larger cities. They are packed into trailers in heavily congested trailer camps. The rationing system does not enable them to provide all of the foods that are regarded as essential in the maintenance of health. Living in inadequately heated trailers, exposed to winter dampness and cold, their lowered resistance may provide a fertile field for the invasion of tuberculosis. The old dwelling houses into which several families may be crowded, and which were intended to provide accommodations for but a single family, make it impossible to avoid close contact, thus facilitating the spread of infection.

FACILITIES FOR CARE LACKING

Most of these workers are not residents of California and under our laws are not eligible for treatment at local expense. Open cases of tuberculosis are commonly found among these migrants employed in war industries. Many complaints of their condition come from

fellow workmen who desire to avoid the infection. The health officer, however much as he may desire to help, can not place an open case of tuberculosis in the county hospital, unless the patient is a resident of the State and of the county.

As a result, hundreds of these open infectious cases are today exposing thousands of fellow workers, members of their own and other families, to this disease whose conquest we boast. Governmental machinery for adequate control is lacking. The individual has no resources by which he may isolate himself. Even though he possessed the funds, he could not get into a private hospital, unless it were an emergency case. This leaves no means of protection for individual citizens, residents of local communities or any individuals who may be contacts.

It is a fundamental in our system of government that the county is responsible for the health and well-being of its residents. All of the official responsibility for tuberculosis control now rests upon the local unit of government. The responsibility for the local care of these industrial workers would normally fall upon the people of the community, but under the strain and emergency of the times, this is an interstate problem rather than a local problem.

Eventually, the Federal Government must find a method by which to care for these unfortunate individuals.

Twenty-five years ago, before the automobile came into common use, when most of our cities existed within closely confined spaces, bad housing was regarded as an important factor in the spread of tuberculosis. With the development of suburbs, rapid transportation and individual home ownership, many of these problems in housing have disappeared or at least their hazards have been reduced greatly. For many years, housing as related to tuberculosis has not been discussed. The situation is completely reversed with transportation curtailed and often eliminated. With terrific congestion in our cities, proper housing is almost unattainable for a very large percentage of the population. The matter is one for very great concern. That this condition will exist for a long period of time is certain. Even under postwar conditions, the development of adequate housing will be extremely slow.

PREVENTION OF HEARING HANDICAPS*

JESSIE M. BIERMAN, M.D., Chief, Bureau of Child and Maternal Health, California State Department of Public Health, San Francisco

The basic philosophy is prevention. If we were really able to carry out a program of prevention as good as we would like, it would be unnecessary to put so much time and energy and money into rehabilitation, as most of the causes of hearing handicaps are really preventable.

The prevention of hearing handicaps has fallen into two classes: the prevention of the causes of handicapping, and the prevention of handicapping itself after the cause is present.

Now the first question is, "What can health departments do to prevent hearing handicaps that occur before or during birth?" A very small percentage of such handicaps occur during that period. There are the congenital causes about which we can do very little except, perhaps, to discourage the marriage of persons who have congenital deafness. There is another small group of infants whose hearing is impaired late in pregnancy by the use of certain drugs. We can do something about this. We can have an educational program for the medical profession. I know that the use of those drugs is becoming less.

Another small group of children are rendered hard-of-hearing because of birth injury. As a part of the work of my Bureau of Maternal and Child Health, we are doing what we can to improve obstetric practice. Birth injuries can be prevented if we can get back far enough and they are becoming fewer. However, these causes account for only about 2 per cent of the hearing defects. Of course, this 2 per cent is important because these are the children who will have the greatest difficulty in developing language, as has been pointed out.

The group of hearing losses that occur during the first 18 or 20 years of life constitute about 80 per cent of hearing handicaps. This group is very important because it is numerically so large and the causes occur during childhood when partial deafness interferes with elementary schooling. In this group are the handicaps caused by middle ear infections, sometimes accompanied by communicable diseases and sometimes not.

You know that all health departments have a great deal to do with the control of communicable diseases. That something has been accomplished in this one field is shown by the fact that we no longer think of typhoid fever and of diphtheria as being very important causes of hearing handicaps, although a number of years back they were regarded as important. Now we have to contend with measles, meningitis and mumps. Generally, we need to increase our control of communicable diseases in areas of the State where there are no full-time public health departments.

In addition to that, I believe we have a responsibility in seeing to it that children who develop otitis

* Discussion on Handicapped Children in Wartime, California Conference of Social Work, Los Angeles, May 10, 1943.

media from measles or mumps have proper medical care. There are many sections of California where children with chronic running ears continue to attend school. Nobody pays any attention to this condition. Neither teachers nor parents realize its seriousness and its danger to the hearing. No one has told them and they think the child will outgrow it. Here is a problem in education for the health departments to undertake.

Our approach in public health is largely an educational approach. As I sat here I was thinking how many individual chapters of the American Society for the Hard of Hearing there are and what progress might be made if every chapter would see to it that their local health departments develop vigorous programs of education and information on the importance of prevention of hearing impairments. In most places health departments need these special groups who will keep the departments informed of their interest. It's like the little dogs that keep the big dogs awake. Informed public opinion keeps public health departments on the qui vive. We have many pressures exerted on us from many groups, but in this State there is no doubt that hearing problems have lagged behind in the program.

Two other causes of hearing handicaps in school age are important. Some one has called them self-inflicted causes. They are diving and wrong methods of blowing the nose. They are very common things. General education is the only solution to those problems.

I think I have touched on the facts. I am trying to stay away from case-findings. The health department has a very important function in case-finding, and we hope we can develop a case-finding program as Dr. Gardner has done. After we have found the children, then something has got to be done. There has been too much case-finding that has stood out by itself in the past. We have case-finding of that sort going on in the rural sections of this State, and that is all it is. Nothing is done. We know that at least 50 per cent of the young people who are found to have hearing defects can be helped and it is absolutely necessary, I believe, if we are going to engage in that large case-finding program to be prepared to see that those children obtain expert help. I hope we may have on our staff an otologist who will be able to give excellent consultation and map out a program for each shild.

It is not enough to have a medical care program for chronically handicapped children. We are finding that we should develop within our medical profession, a plan for early recognition, and early, proper treatment of children who are found to have otitis media. Too many of these cases are just watched to see what will develop. As a matter of fact, for many years we didn't know anything else to do. A great deal of progress has been made in recent years in improving treatment of otitis media. That is information we must get out to every family doctor so he will know he has a responsibility for every child with a running ear.

This program of prevention is such an important one that it is going to take the cooperation of everybody. Dr. Gardner uses the word "team work," and it is applicable here. Every department will need the help of the doctor, and your hard-of-hearing societies can do a great deal; school authorities have a big stake in this thing, and we can not accomplish anything without their help and that of the parents.

CLINICS FOR CRIPPLED CHILDREN

Four diagnostic clinics for crip vere held during June in San Maria, L Santa Barbara and San Luis Obispo. Four regular cardiac clinics were held in Contra Costa ano counties, as well as in Oakland. During th 32 children were accepted for care, 35 thro of State funds in the Crippled Children through the use of Federal funds.

During the month, arrangements for six nurses employed by the State Department of Public Health, were made to take the Kenny course in the treatment of infantile paralysis.

MOTOR VEHICLE DEATHS DECREASED

There were 2,437 deaths due to motor vehicle accidents registered in California last year, as compared with 3,575 registered in 1941. In the past five years nearly 15,000 motor vehicle deaths have occurred in California, as indicated by the following table:

Motor Vehicle Deaths in California	*1938*	*1939*	*1940*	*1941*	*1942*
	2778	2847	3017	3575	2437

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